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Gauthier et al.

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- (54) **HIGH SENSITIVITY FIBER OPTIC ROTATION SENSOR**
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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 32 days.

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(58) **Field of Search** 250/227.11, 227.16; 385/12, 24, 147

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(57) **ABSTRACT**

The present invention relates to a fiber optic rotation sensing device. The sensing device includes a stationary base, a rotatable member, and an optical fiber configured in at least one loop about the rotatable member. The optical fiber is secured to an exterior portion of the rotatable member and to the base. Rotation of the rotatable member causes a distortion of the at least one loop and a change in the intensity of the light passing through the optical fiber. The change in light intensity is measured to provide an indication of the degree of twist of the rotatable member.

9 Claims, 1 Drawing Sheet

